

CLIMATOLOGICAL DATA FOR MARCH, 1912.

DISTRICT NO. 8, TEXAS AND RIO GRANDE VALLEY.

B. BUNNEMEYER, District Editor.

GENERAL SUMMARY.

March was cold, wet, and disagreeable, with fully 50 per cent more than the usual number of cloudy and rainy days. This is the fifth consecutive month with a large deficiency of temperature, and over the greater portion of the district the mean temperature was, with one exception, the lowest of record during the last 24 years. There were, however, no unusually severe cold spells during the month. The precipitation was greater than normal, except along the coast, in the middle and lower portions of the Rio Pecos Valley, and in the lower Rio Grande Valley. It was heaviest in the extreme northwestern and in the eastern portions of the district, where the amounts ranged from 1 to 6 inches above normal, and least in the lower Rio Pecos and upper Colorado Valleys, where the amounts averaged less than 0.10 inch. The precipitation was rather evenly distributed throughout the month, measurable amounts occurring daily in some portion of the district. The number of days with 0.01 inch or more of precipitation averaged 11 in Colorado, 6 in New Mexico, and 7 in Texas. There were many cloudy days without rain, which held evaporation at a minimum and kept the ground too wet for outdoor work during the larger part of the month.

The monthly amounts of precipitation ranged in Colorado from 7.73 inches at Cumbres to 0.29 inch at Garnett, in New Mexico from 9.26 inches at Anchor Mine to 0.02 inch at Lagunita and Lakewood, and in Texas from 10.64 inches at Marshall to 0.00 inch at Barstow and Grand Falls. At four other stations in the trans-Pecos region of Texas there was only a trace of precipitation. Amounts of 2.50 inches or more in 24 consecutive hours occurred at 10 stations, all in the central and northeastern portions of Texas, the heaviest being 3.90 inches at Waco on the 4th.

The snowfall was unusually heavy in the mountain districts, the greatest monthly amount reported being 144 inches at Anchor Mine, N. Mex.

TEMPERATURE.

The temperature deficiency was most marked in the eastern portion of the district and averaged 1.4° in New Mexico, 1.6° in Colorado, and 6.4° in Texas. Moderately cold spells occurred in each decade, but that of the 21st-24th did great damage to early fruit blossoms in the lower Rio Pecos Valley. The 18th and 19th were generally the warmest days of the month. The highest and lowest temperatures reported were: In Colorado, 65° at Saguache on the 19th, and -18° at Hermit on the 15th and 24th; in New Mexico, 88° at Artesia on the 19th, and -2° at Chama on the 15th; and in Texas, 98° at Eastland on the 19th, and 14° at Seymour on the 8th and at Spur on the 21st. The average diurnal range of temperature varied from about 10° on the Texas coast to about 38° in the northwestern portion of the district. The local monthly means ranged from 19.5° to 36.6° in Colorado, from 30.7° to 53.1° in New Mexico, and from 43.8° to 66.4° in Texas.

PRECIPITATION.

Over the Rio Grande watershed the average monthly precipitation was 1.55 inches, which is 0.30 inch greater than normal; the excess being greatest over the upper reaches where the precipitation was nearly all in the form of snow. The heaviest amount in the watershed was 9.26 inches at Anchor Mine, N. Mex. A marked deficiency occurred over the Texas portion of the watershed, with two stations reporting a trace only.

The precipitation over the Rio Pecos watershed was decidedly deficient, except over its extreme upper portion, where a good excess occurred. The average for the entire watershed was only 0.39 inch. The greatest monthly amount recorded was 3.33 inches at Windsor's, N. Mex., while there was no precipitation at 2 stations in Texas and only a trace at 2 others.

The precipitation over the Texas watersheds averaged near normal in their upper portions, above normal in their middle portions, and below normal near the coast. The greatest monthly amount was 10.64 inches at Marshall in the Sabine watershed, and the least 0.10 inch at Midland in that of the Colorado. The following are the monthly amounts in inches for the various watersheds: Nueces, 1.80; San Antonio, 2.59; Guadalupe, 2.34; Lavaca, 1.99; Colorado, 1.63; Brazos, 3.00; Trinity, 5.20; Neches, 6.67; Sabine, 7.29; and coastal plains, 1.28. These amounts are greater than normal, except for the coastal plains which had a shortage of 0.96 inch. The excesses ranged from 0.14 inch for the Lavaca watershed to 3.81 inches for that of the Sabine.

RIVER CONDITIONS.

Good rises occurred in nearly all streams of the district during the month, especially in the upper Rio Grande, and throughout the Trinity, Neches, and Sabine. The last-named stream was at flood stage from the 28th to the close of the month, while the Trinity was bank full in its lower portion during the same period. The rises in the Colorado and Brazos were confined to their middle and lower portions and had subsided before the month closed, while the Trinity, Neches, and Sabine continued well above the normal. Advises and warnings were issued for these rises, and so far as reported no damage resulted.

SNOWFALL IN THE MOUNTAINS.

The snowfall during March was unusually heavy over the upper reaches of the Rio Grande, and over much of the area the fall during the month was as great as the entire fall during the three preceding months. At the close of the month the average depth on the extreme upper Rio Grande watershed at an altitude of 9,300 feet was 26 inches, or 9 inches greater than at the corresponding date of the previous year. The snow is mostly in drifts and fairly well packed, but there is a general absence of crusts, and melting will be rapid unless checked by cold. The snowfall over the headwaters of the Rio Pecos was much less, and the outlook for water continues about the same as at the close of February.

TABLE 1.—Climatological data for March, 1912. District No. 8, Texas and Rio Grande Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																				
Blanca.	Costilla.	7,865	3								7.73		1.12	74.0	20	7	17	7	sw.	Dr. L. C. Audrain.
Cumbres.	Conejos.	10,015	5								0.29	+ 0.05	0.10	3.0	3	12	2	nw.	Mrs. Ida M. Lively.	
Garnett.	Costilla.	7,576	19	34.0	+ 0.9	56	18†	6	1	41	3.65		0.62	48.0	14	8	8	15		Chas. Speiser.
Hermit.	Hinsdale.	9,843	5	19.5		47	24†	- 18	15†	65	2.55		1.51	34.6	5	10	16	w.	Marion Mason.	
La Veta Pass.	Costilla.	9,000	2								0.38		0.19	1.19	3	10	12	9	sw.	Clara M. Wright.
Manassa.	Conejos.	7,700	5	34.6		52	18†	11	15	34	5.00		0.71	65.5	17	4	7	30	sw.	J. B. Chapman.
Platoro.	do.	7,675	5								0.58	+ 0.25	0.27	6.0	7	6	10	15	sw.	Walter R. Hook.
Saguache.	Saguache.	7,740	20	36.6	+ 1.6	65	19	9	1	45	0.73	+ 0.01	0.27	7.3	8	10	20	1	nw.	Eugene Williams.
San Luis.	Costilla.	7,794	21	34.6	- 0.1	55	18	- 13	17	41	2.52	+ 1.28	0.46	32.0	21	5	17	9	sw.	P. B. Albright.
Wagon Wheel Gap Experiment Station.	Mineral.	9,235	1	25.0	- 8.7	45	18	- 1	14	40								n.	U. S. Weather Bureau.	
New Mexico.																				
Agricultural College.	Dona Ana.	3,863	51	51.2	- 2.3	80	19	26	25	47	0.30	+ 0.01	0.29	0	2	13	12	6	w.	New Mexico Agr. College.
Alamogordo (near).	Otero.	4,338	15	53.1	- 0.9	83	19	22	4	52	0.47	- 0.02	0.47	0	2	25	4	2	s.	Herbert Crippen.
Alamogordo.	do.	4,320	3								0.47		0.36	0	3					Agent E. P. & S. W. R. R.
Alamos Ranch.	Santa Fe.	7,800	2								1.33		0.40	8.5	9	17	3	11	sw.	Harold H. Brooks.
Albuquerque.	Bernalillo.	5,000	36								0.74	+ 0.51	0.44	0	5	11	17	3	w.	Pitt Ross, C. E.
Ancho.	Lincoln.	6,112	3								0.75		0.38	2.5	3				w.	Agent E. P. & S. W. R. R.
Anchor Mine.	Taos.	10,600	1								0.26		1.30	144.0	21	0	7	24	se.	Charles H. Brigham.
Artesia.	Eddy.	3,350	4	51.2		88	19	21	15†	53	0.03		0.03	0	1	14	5	12	sw.	Will Benson, C. E.
Aspen Grove Ranch.	Rio Arriba.	9,000	3								4.49		0.79	42.9	14	5	21	5	w.	Junius D. Maupin.
Banks.	Roosevelt.																		Aaron Hawkins.	
Batemans Ranch.	Rio Arriba.	8,900	3								5.98		0.72	46.5	15	7	14	10	w.	John W. Bateman.
Berino.	Dona Ana.	3,788	1								0.34		0.34	0	1				w.	J. C. Rishaberg.
Bluewater.	Valencia.	6,730	10	38.3	- 0.1	66	19	10	3	50	0.53	+ 0.15	0.15	3.7	8	5	22	4	w.	Bluewater Development Co.
Boaz.	Chaves.	4,154	3	47.8		83	19†	14	15	52	0.21		0.17	0	2	13	13	5	w.	D. C. Savage.
Capitan.	Lincoln.	3,348	3								0.55		0.80	2.5	3	3	11	7	sw.	Agent E. P. & S. W. R. R.
Carlisle.	Eddy.	3,120	17	52.8	- 4.3	87	18	20	15	54	0.30	- 0.12	0.25	0	2	21	2	8	se.	U. S. Reclamation Service.
Carrizozo.	Lincoln.	5,428	4	46.4		72	19†	20	14	44	0.40		0.30	0	3	24	1	6	se.	Agent E. P. & S. W. R. R.
Cerrillos (near).	Santa Fe.	5,700									0.68		0.25	1.0	9	8	16	7	se.	Irvin C. Sweet.
Chama.	Rio Arriba.	7,851	14	30.7	- 3.3	52	30	- 2	15	41	5.76	+ 3.16	1.00	57.5	19	10	14	7	sw.	Frank C. Johnson.
Cloudcroft.	Otero.	8,650	10	37.8	+ 0.5	60	19	16	22†	29	0.42	- 0.68	0.30	5.0	3				sw.	Agent E. P. & S. W. R. R.
Corona.	Lincoln.	6,666	3													15	4	12	w.	Do.
Coyote.	do.	5,800	3								1.24		0.48	T	8	17	5	9	sw.	Do.
Cundijo.	Santa Fe.	6,889	3								1.17		0.62	4.8	8	8	20	3	w.	Juan Viljil.
Demonstration Farm.	San Miguel.	6,800	3								0.33		0.22	4.0	3				w.	Erb & Westerman.
Duran.	Torrance.	6,272	3								0.16		0.16	2.0	1	17	6	8	sw.	Agent E. P. & S. W. R. R.
Escondido.	Otero.	4,014	3								0.23		0.21	0	2	18	11	2	sw.	Do.
Espanola.	Rio Arriba.	5,590	14	42.6	- 1.0	63	18	22	1	43	1.11	+ 0.71	0.40	9.0	6	8	18	5	w.	Mrs. E. F. McBride.
Estancia.	Torrance.	6,140	7	42.8		69	8	10	4	44	0.58	+ 0.03	0.27	5.5	4	17	13	1	sw.	Agent N. M. Centi, R. R.
Fort Stanton.	Lincoln.	6,231	35	43.3	- 0.8	76	19	15	16	52	0.34	- 0.46	0.21	T	4	18	4	9	w.	U. S. Sanitarium.
Fort Sumner.	Guadalupe.	3,960	4																w.	F. A. Manzanares.
Gallinas.	Lincoln.	6,635	3	36.4		58	18	15	5†	41	0.57		0.37	0	3	16	1	14	w.	Agent E. P. & S. W. R. R.
Gallinas Planting Sta.	San Miguel.	7,500	5								0.60		0.60	22.5	9	12	10	9	sw.	U. S. Forest Service.
Glorietas Ranch.	Socorro.	5,700	2																w.	Charles M. Crossman.
Harvey's Upper Ranch.	San Miguel.	9,400	3																w.	Simon B. Warner.
Hillsboro.	Sierra.	5,224	14																w.	Dr. F. J. Givens.
Hedges.	Taos.	8,484	2								3.51		1.50	50.0	7	6	19	6	nw.	Andrew J. Armstrong.
Hondo Reservoir.	Chaves.	3,904	3	47.8		84	18†	14	15	53	0.03		0.03	T	1	18	5	8	s.	U. S. Reclamation Service.
Jemez Springs.	Sandoval.	6,100	2	40.2		61	18	20	15	30	2.36		1.22	5.5	6	4	13	14	sw.	Linus L. Shields.
Knowles (near).	Eddy.	4,300	2	47.6		86	19	14	15	54	0.47		0.45	T	2	14	5	12	w.	J. W. Mosley.
Laguna.	Valencia.	5,840	7	42.6		65	18	22	16	37	0.36		0.28	4.5	2				w.	Guss Weiss.
Lagunita.	Guadalupe.	4,500	7	41.6		71	26	18	1	41	0.02		0.02	0	1	15	8	sw.	P. A. Turnbull.	
Lake Valley.	Sierra.	5,412	7								2.13		2.03	T	4	7	24	0	sw.	William P. Keil.
Lakewood.	Eddy.	3,170									0.02		0.01	T	2	20	9	2	se.	Miss J. Knapp.
Las Vegas.	San Miguel.	6,385	25	38.4	- 3.3	64	19	12	1	39	0.63	+ 0.03	0.20	7.7	6	20	6	5	sw.	New Mexico Normal Univ.
Liston.	Chaves.	5,000	2								0.10		0.10	0	1	9	15	7	sw.	H. G. Liston.
Los Lunas (near).	Valencia.	4,900	23	46.8	- 0.2	72	18†	19	15	47	1.06	+ 0.60	0.78	0	5	2	29	0	sw.	Richard Pohl.
Magdalena.	Socorro.	6,557	7	42.4		67	19	18	11†	38	0.10		0.03	T	4	14	15	2	w.	William Pender.
Mescalero.	Otero.	6,627	1	41.4		68	19	19	16	37	1.36		1.02	0.6	6	14	4	13	sw.	Rev. R. H. Harper.
Mineral Hill.	San Miguel.	7,050	7								0.35		0.42	0	3	13	3	15	w.	W. M. Nelson.
Monterey.	Otero.	4,436	3								0.35		0.35	5.8	5	15	5	11	sw.	Agent E. P. & S. W. R. R.
Mountainair.	Torrance.	6,547	10	42.5	- 2.2	71	19	16	24	45	0.77	- 0.15	0.20	0	1	16	6	9	w.	Miss Julia Hill.
Newman.	Otero.	3,989	3								0.20		0.20	0	1	16	6	9	w.	Agent E. P. & S. W. R. R.
Noria.	Dona Ana.	4,114	3								0.54		0.38	C	3	20	4	7	w.	Do.
Orogrande.	Otero.	4,171	3								0.26		0.24	0	2	13	11	7	w.	Do.
Oscura.	Lincoln.	5,016	3								0.71		0.50	0	4				w.	Eugene F. Jones.
Otis.	Eddy.	3,100	3								0.13		0.09	0	2	18	2	11	se.	A. M. Howe.
Otto.	Santa Fe.	6,200	3								1.22		0.64	1.2	12	12	8	11	w.	Otto Goetz.
Pastura.	Guadalupe.	5,285	3								0.17		0.12	1.5	2	16	8	7	sw.	Agent E. P. & S. W. R. R.
Placitas (near).	Bernalillo.	8,000	1	35.4		54	19	14	22	30	2.14		0.85	15.3	10	10	11	10	e.	George C. Ellis.
Plainview.	Chaves.	4,300	1								0.17		0.17	0	1	10	8	13	sw.	L. P. Adair.
Red River Canyon.	Taos.	8,965	7	31.0		56	30	6	13</											

TABLE 1.—*Climatological data for March, 1912. District No. 8—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.								Precipitation, in inches.								Sky.				Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.	Number of rainy days, 0.01 inch or more.	Number of partly cloudy days.	Number of clear days.	Number of cloudy days.										
New Mexico—Contd.																												
Tres Piedras.	Taos.	8,076	9	32.8	51	18	10	11†	34	1.32	+ 0.24	0.50	8.0	9	14	4	13	sw.	U. S. Forest Service.									
Truchas.	Rio Arriba.	7,935	3	33.0	53	21	9	24	32	2.18	-	0.46	15.5	16	1	19	11	w.	Miss Ruth Rendon.									
Tularosa.	Otero.	4,436																										
Vaughn.	Guadalupe.	5,952	3																									
Virsylvania.	Taos.	7,500	2	36.6	60	19	15	9	30	1.18	-	0.31	5.0	14	11	14	6	s.	Irby L. Fairless.									
Winsors.	San Miguel.	8,200	16	32.4	- 1.4	50	18	10	24	35	3.33	+ 1.96	0.65	14.0	12	8	14	9	s.	Agent E. P. & S. W. R. R.								
Texas.																												
Abilene.	Taylor.	1,738	27	49.0	- 5.9	90	19	24	9	42	1.40	+ 0.02	0.57	T.	7	7	6	18	s.	U. S. Weather Bureau.								
Albany.	Shackelford.	1,423	18	47.8	- 8.6	91	19	20	8	45	1.63	+ 0.43	0.55	0	5	8	3	20	se.	N. L. Bartholomew.								
Alice.	Jim Wells.	209		61.3	-	57	20	38	25	30	0.72	-	0.47	0	5	5	5	21	se.	R. M. Boerum.								
Alpine.	Brewster.	4,482	2											T.	0	27	1	3	w.	J. Frank Dobie.								
Alvin.	Brazoria.	49	14	57.5	-	82	21	33	25	32	2.67	- 0.32	0.95	0	8	6	5	20	se.	Alvin Japanese Nursery.								
Anahuac.	Chambers.	23	3											4.59	-	1.17	0	8	6	e.	B. H. Collins.							
Antelope.	Jack.													3.95	-	1.58	0	8	10	8	13	se.	Dr. I. N. Woodman.					
Aspermont.	Stonewall.													1.45	-	0.55	0	9	6	6	16	s.	James F. Matty.					
Austin.	Travis.	593		53.8	- 7.1	77	20	32	9†	30	2.19	- 0.22	0.78	0	12	10	4	17	nw.	U. S. Weather Bureau.								
Ballinger.	Runnels.	1,637	16	52.4	- 5.6	90	19	26	9†	40	0.56	- 0.41	0.22	0	4	9	3	19	n.	N. L. Bartholomew.								
Barstow.	Ward.	2,573	5	54.0	-	90	20	24	1†	57	0.00	-	0.00	0	0	17	2	12	e.	R. M. Boerum.								
Bay City.	Matagorda.	53	2	60.4	-	85	1	37	25	40	1.60	-	0.65	0	6	4	3	24	n.	Lee F. Freeman.								
Beaumont.	Jefferson.	29	11	58.4	- 5.1	80	37	36	25	27	3.32	+ 0.47	1.18	0	8	7	0	24	e.	E. C. Quereau.								
Beeville.	Bee.	225		60.8	- 5.4	84	14	37	22	32	1.02	- 0.93	0.36	0	10	10	3	18	se.	John Bender.								
Big Spring.	Howard.	2,396	14	52.7	- 6.6	90	19†	22	15	48	0.17	- 0.61	0.06	0	8	11	9	11	s.	L. E. Dickey.								
Blanco.	Bianco.	1,359	16	54.2	- 4.0	84	19	30	9	21	3.11	+ 1.33	1.57	0	7	5	17	9	s.	R. C. Crist.								
Boerne.	Kendall.	1,412	20	58.6	- 0.9	82	11	40	8†	32	3.53	+ 1.78	1.32	0	11	7	6	18	n.	F. W. Schuppe.								
Booth.	Fort Bend.	81	11								2.50	- 0.58	0.69	0	9	7	0	24	e.	T. R. Booth.								
Bowie.	Montague.	1,113	17	48.0	- 10.4	88	19	24	9†	36	5.18	+ 2.97	1.70	0.5	12	10	5	16	n.	Craig Anderson.								
Brady.	McCullough.	1,500	11								0.95	-	0.50	0	3						J. W. Griffin.							
Brazoria.	Brazoria.	25	23	60.2	- 3.1	80	17†	34	25	31	1.71	- 1.01	0.80	0	12	11	5	15	s.	Mrs. M. A. Stevens.								
Brazos.	Palo Pinto.	801	3								1.85	-	0.56	0	6	11	2	18	s.	Robt. E. Boyett.								
Brenham.	Washington.	350	27	54.8	- 8.2	80	31	35	9†	37	3.19	+ 0.47	0.60	0	12	7	1	23	n.	Mrs. B. F. Sloan.								
Bridgeport.	Wise.	754	3								2.86	-	0.80	T.	11	9	3	19	s.	Claude Strange.								
Brighton.	Nueces.	12	19	63.0	- 3.1	85	28	40	22	35	0.40	- 0.76	0.40	0	1	13	3	15	nw.	G. H. Ritter.								
Brownsville.	Cameron.	38	48	65.3	- 3.2	86	31	40	25	32	0.20	- 1.07	0.07	0	7				se.	U. S. Weather Bureau.								
Brownwood.	Brown.	1,342	20	50.2	- 7.2	73	19	27	9†	43	2.46	+ 0.89	1.03	0	7	2	15	14	n.	Mrs. Pearl Smith.								
Cameron.	Millam.	4		53.8	-	83	17	32	10†	44	5.11	-	1.78	0	11	15	6	10	nw.	J. E. Watts.								
Carmona.	Polk.	330	17	55.2	-	83	19	28	16	37	5.43	-	1.50	0	10	7	6	18	s.	M. S. Spitzer.								
Claytonville.	Fisher.	2,100	17	50.2	- 4.3	91	19	23	15	48	1.18	- 0.04	0.52	0	4	6	12	13	s.	Wm. Lanius.								
Clifton.	Bosque.	671									6.50	-	1.78	0	14	3	7	21	s.	R. M. Jones.								
Coleman.	Coleman.	1,710	18	53.2	- 5.1	95	19	26	9	48	1.35	+ 0.03	0.66	0	6	7	12	12	s.	J. E. Stevens.								
Collegeport.	Matagorda.			57.8	-	86	21	32	25	36					10	3	18	22	s.	H. A. Clapp.								
Colorado.	Mitchell.	2,066		52.2	- 5.5	92	19†	22	15	47	0.28	- 0.53	0.22	0	3	15	6	10	s.	Prof. G. S. Fraps.								
Columbia.	Brazoria.	34									1.82	-	0.56	0	9	6	3	22	n.	R. M. Webb.								
Corpus Christi.	Colorado.	206	8								0.58	- 1.27	0.45	0	10	3	18	20	s.	Mrs. Sophie Bridge.								
Corsicana.	Navarro.	20	25	59.8	- 4.6	80	28	40	22	28	0.53	- 1.37	0.45	0	10	3	6	4	n.	U. S. Weather Bureau.								
Cotulla.	La Salle.	425	5								4.53	+ 1.72	1.30	0	11	6	4	21	n.	D. H. Winn.								
Crockett.	Houston.	350	8	55.0	-	80	18†	32	13†	33	5.68	-	1.50	0	10	8	6	17	s.	Holland Agricultural Co.								
Cuero.	De Witt.	177	22	58.0	- 6.5	84	20	35	25	37	2.30	+ 1.34	1.00	0	9	9	0	22	n.	A. M. Rencher.								
Dallas.	Dallas.	466	23	48.5	- 8.1	90	19	29	15†	48	4.98	+ 1.24	1.42	0	15	7	0	24	s.	H. R. Forbes.								
Danevang.	Wharton.	145	16	59.8	- 4.1	83	21	35	25	44	2.05	- 0.61	0.80	0	6	10	4	17	se.	G. A. Eisenlohr.								
Decatur.	Wise.	1,047									2.30	- 0.69	1.00	0	6	7	7	17	s.	H. P. Hermansen.								
Del Rio.	Valverde.	952	6	58.7	- 3.0	85	11	34	22	41	0.58	- 1.10	0.28	0	7	6	15	10	se.	F. W. D. C. Ry.								
Devine.	Medina.	653	2	59.4	-	82	17†	36	23	34	2.53	-	1.40	0	9	8	8	15	s.	U. S. Weather Bureau.								
Dilley.	Cherokee.	575		53.4	-	89	18	30	15	34	9.57	-	2.95	0	11	8	7	16	s.	J. M. B. McKnight.								
Dublin.	Frio.	569	2								0.85	-	0.60	0	3	1	1	19	s.	John W. Miller.								
Duval.	Erath.	1,466	23	49.0	- 9.1	95	19	25	9	52	3.13	+ 1.76	1.89	0	9	6	6	19	s.	Jno. O. Shafer.								
Eagle Pass.	Travis.	820	23	54.0	- 8.6	79	18	32	9†	38	3.15	+ 1.11	1.02	0	9	11	1	19	s.	J. C. Edgar.								
Eastland.	Maverick.	800	35	60.7	- 4.7	87	20	36	22	43	0.98	- 0.13	0.75	0	5	7	5	20	s.	Charles Tarver.								
Edna.	Jackson.	71	3								1.97	-	0.56	0	8	9	3	19	nw.	Wm. D. Cook.								
El Paso.	El Paso.	3,762	33	54.0	- 1.9	83	19	32	1	42	0.27	- 0.11	0.24	0	2	16	10	5	w.	E. L. Fairless.								
Encinal.	Concho.	558	4	56.2	-	84	20†	34	9†	39	1.05	-	0.55	0	4	12	0	19	s.	U. S. Weather Bureau.								
Eola.	Burnet.	1,000	23	53.8	- 5.7	86	19	30	9	43	2.09	+ 0.13	1.08	0	12	9	7	15	s.	Walter Pettit.								
Fairland.	Brooks.	4		64.8	- 3.6	96	20	35	22	43	0.39	- 0.59	0.28	0	2	8	12	11	e.	E. W. Neal.								
Falfurrias.	Gillespie.	3,050	15	56.2	- 1.8	92	20	23	15†	54	0.10	- 0.52	0.10	0	1	7	18	6	ne.	R. L. Bush.								
Fort Stockton.	Fayette.	1,742	23	53.1	- 6.6	79	18	23	9	43	3.34	+ 1.58	1.44	T.	14	5	8	18	s.	W. A. Gardner.								
Fredericksburg.	Smith.	52	2	52.1	-	83	19	30	13†	39	7.48	-	2.04	0	12	5	6	20	s.	Fred W. Lauth.								
Gainesville.	Kinney.	1,050	41	56.0	- 7.1	78	4	33	7†	35	1.55	+ 0.43	1.20	0	2	20	7	4	nw.	F. C. C. Cartee.		</						

TABLE 1.—Climatological data for March, 1912. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
<i>Texas—Continued.</i>																			
Hewitt.....	McLennan.....	664	17	.....	.....	.....	.....	.....	.....	.....	5.14	+ 2.71	1.65	0	11	7	6	n.	I. H. Earle,
Hico.....	Hamilton.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.53	.....	0.53	0	13	7	6	18	John A. Eakins.
Hillsboro.....	Hill.....	823	9	51.9	.....	86	20	29	15†	41	5.87	.....	1.53	0	9	6	14	se.	W. G. Escott.
Hondo.....	Medina.....	901	13	54.6	.....	86	20	34	22	43	4.17	+ 2.56	3.29	0	6	3	14	se.	H. E. Haass.
Houston.....	Harris.....	138	22	57.8	— 5.7	82	3	39	9	31	2.91	— 0.69	0.82	0	12	5	5	21	U. S. Weather Bureau.
Huntsville.....	Walker.....	400	28	54.0	— 6.6	80	19†	33	13	36	6.14	+ 2.59	2.00	0	6	6	0	25	W. Y. Barr.
Jayton.....	Kent.....	2	.....	.....	.....	.....	.....	.....	.....	.....	0.65	.....	0.65	0	1	14	17	Wichita Valley Ry. Co.	
Jewett.....	Leon.....	496	8	51.6	.....	81	20	31	15	35	6.53	.....	2.20	0	9	11	8	12	Earle Atkisson.
Junction.....	Kimble.....	1,645	11	54.4	.....	82	3	28	15†	43	1.06	— 0.39	0.65	0	3	8	8	15	Judge John S. Durst.
Kaufman.....	Kaufman.....	448	13	51.5	— 8.9	83	19	28	15	41	5.91	+ 2.94	1.36	0	14	9	6	16	B. J. Hubbard.
Kerrville.....	Kerr.....	1,650	16	54.4	— 5.7	78	20	30	9†	35	1.60	+ 0.28	0.72	0	7	12	8	n.	Robert E. Horne.
Killeen.....	Bell.....	.....	.....	53.0	.....	82	18†	29	22	42	5.64	.....	2.33	0	10	8	8	15	J. E. Root, Jr.
Knickerbocker.....	Tom Green.....	2,050	8	54.4	.....	91	19	22	15	43	0.82	.....	0.22	0	6	17	4	s.	Jos. Tweedy.
Kopperl.....	Bosque.....	576	15	.....	.....	.....	.....	.....	.....	.....	4.72	+ 1.82	1.60	0	5	5	5	21	T. A. Johnson.
Lagrange.....	Fayette.....	276	2	.....	.....	.....	.....	.....	.....	.....	3.17	.....	1.33	0	12	8	1	22	August Hermes.
Lamesa.....	Dawson.....	2,500	20	51.8	— 7.5	91	18	30	9	49	0.97	.....	0.60	0	4	1	21	S. D. Austin.	
Lampasas.....	Lampasas.....	1,026	20	51.8	— 7.5	91	18	30	9	49	2.90	+ 1.14	1.68	0	8	9	1	21	Mrs. K. L. Webber.
La Farra.....	Willacy.....	38	10	.....	.....	42	22	.....	.....	.....	0.48	— 1.40	0.30	0	3	12	0	19	Jno. G. Kenedy.
Laureles Ranch.....	Nueces.....	20	12	.....	.....	.....	.....	.....	.....	.....	0.54	— 1.31	0.54	0	1	1	1	1	Matt Cody.
Liberty.....	Liberty.....	38	8	57.8	.....	81	3	33	16	31	4.05	.....	0.95	0	10	7	8	16	Mrs. Fannie Sheard.
Llano.....	Llano.....	1,040	21	51.7	— 9.7	87	18	30	9	40	1.85	+ 0.83	0.63	0	9	14	7	10	E. W. Torrence.
Llano Grande.....	Hidalgo.....	86	4	59.8	.....	89	28	30	24	43	7.51	.....	3.00	0	7	2	3	26	M. D. Wardlow.
Long Lake.....	Anderson.....	229	7	.....	.....	85	19	30	15	33	3.08	+ 3.73	2.90	0	14	9	1	21	Geo. W. Ellis.
Longview.....	Gregg.....	336	26	51.0	— 7.5	85	19	30	15	33	0.61	.....	0.46	T.	6	7	12	12	C. A. Propst.
Lubbock.....	Lubbock.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.75	.....	2.10	0	7	11	2	18	A. L. Paschall.
Lufkin.....	Angelina.....	325	5	55.0	.....	84	19	30	14	38	4.73	.....	1.65	0	6	16	1	14	T. A. King.
Luling.....	Caldwell.....	418	23	57.0	— 5.3	81	20	34	9	34	2.22	+ 0.61	0.54	0	12	6	4	21	John Carter.
McGregor.....	McLennan.....	713	2	.....	.....	.....	.....	.....	.....	.....	0.46	.....	0.20	T.	6	7	12	12	W. H. Whitley.
Marathon.....	Brewster.....	4,043	2	52.3	.....	84	21	21	9	60	7.56	.....	1.18	0	8	5	3	23	Rev. A. P. Willis.
Marble Falls.....	Burnet.....	771	4	.....	.....	.....	.....	.....	.....	.....	0.24	.....	0.72	0	9	3	11	R. H. Cochran.	
Marfa.....	Presidio.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.41	.....	0.12	0	1	1	1	R. K. Colquitt.	
Marshall.....	Harrison.....	375	11	51.8	.....	82	19	29	16	36	10.64	+ 6.58	3.71	0	12	3	14	14	Lee Scott.
Matagorda.....	Matagorda.....	12	2	.....	.....	.....	.....	.....	.....	.....	0.99	.....	0.99	0	5	24	3	4	W. E. McNabb.
Mexia.....	Limestone.....	537	8	48.8	.....	78	19	29	15†	38	6.26	.....	2.40	0	11	4	4	23	Miss Josephine Newman.
Midland.....	Midland.....	53	5	51.9	.....	91	20	22	15	51	0.10	.....	0.10	0	1	9	13	W. M. Midkiff.	
Mission.....	Hidalgo.....	140	2	66.0	.....	95	13	40	24	44	0.24	.....	0.20	0	2	17	10	4	se.
Mont Belvieu.....	Chambers.....	65	2	.....	.....	.....	.....	.....	.....	.....	0.12	.....	0.72	0	9	3	11	A. R. Shearer.	
Mountain View.....	Pecos.....	2,900	2	.....	.....	.....	.....	.....	.....	.....	0.12	.....	0.12	0	1	1	1	Lucius W. Gosselin.	
Mount Blanco.....	Crosby.....	2,750	23	44.2	— 7.4	85	19†	17	9	47	0.60	+ 0.02	0.60	0	4	16	2	13	H. C. Smith.
Nacogdoches.....	Nacogdoches.....	271	13	53.0	— 7.7	81	17†	30	15	35	7.18	+ 3.36	2.00	0	9	7	1	21	J. Giesecke.
New Braunfels.....	Comal.....	720	23	56.2	— 6.2	81	20	34	9†	36	2.76	+ 1.08	1.03	0	10	6	7	18	U. S. Weather Bureau.
Palestine.....	Anderson.....	510	30	52.4	— 6.1	78	19	30	15	38	7.55	+ 4.08	2.46	0	14	5	8	18	J. Giesecke.
Panter.....	Hood.....	1,000	23	.....	.....	.....	.....	.....	.....	.....	2.72	+ 0.66	0.63	0	12	4	2	18	E. H. Snyder.
Pearl.....	Frio.....	629	2	.....	.....	.....	.....	.....	.....	.....	0.98	.....	0.67	0	12	3	1	21	Earnest De Vilbiss.
Pierce.....	Wharton.....	102	6	57.6	.....	84	18	30	26	42	2.44	.....	1.06	0	3	5	7	3	R. B. Pointer.
Plainview.....	Hale.....	3,370	16	43.8	— 7.8	84	19	17	9†	50	0.03	+ 0.18	0.50	T.	3	15	3	13	J. F. Sander.
Port Arthur.....	Jefferson.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.50	.....	0	1	1	1	1	Griffing Bros. Co.	
Port Lavaca.....	Calhoun.....	20	11	59.2	— 6.2	87	14	38	9†	35	0.96	— 0.70	0.48	0	2	8	13	J. H. Hickford.	
Post City.....	Garza.....	2,700	2	.....	.....	.....	.....	.....	.....	.....	0.99	.....	0.35	0.2	5	9	6	16	W. L. Dodd.
Putnam.....	Callahan.....	1,591	.....	.....	.....	.....	.....	.....	.....	.....	0.32	.....	0.10	0	7	19	11	se.	
Raymondville.....	Cameron.....	.....	.....	63.4	.....	88	19	38	25	37	0.46	.....	0.33	0	5	11*	8*	se.	
Ricardo.....	Nueces.....	57	3	63.4	.....	88	19	38	25	37	6.77	.....	2.30	0	10	9	3	19	Al. Patterson.
Riverside.....	Walker.....	169	8	.....	.....	.....	.....	.....	.....	.....	7.90	.....	2.00	0	6	8	3	20	Mrs. C. W. Higdon.
Rockland.....	Tyler.....	136	8	.....	.....	.....	.....	.....	.....	.....	0.68	— 1.14	0.38	0	3	5	13	Mack Dunkin.	
Rockport**.....	Aransas.....	12	11	60.4	— 2.9	83	31	42	9	25	2.37	+ 1.02	0.97	0	5	7	7	17	Mrs. G. B. Grewe.
Rossville.....	Atascosa.....	558	5	57.0	.....	81	20	35	22	30	1.50	.....	0.77	0	6	8	10	Reiffert & Frobose.	
Runge.....	Karnes.....	308	17	.....	.....	.....	.....	.....	.....	.....	2.37	+ 1.02	1.40	0	6	7	7	Jas. Johnson.	
Sabinal.....	Uvalde.....	964	8	56.9	.....	85	20†	34	22	47	4.65	.....	1.80	0	9	6	1	24	L. M. Crockett.
Salado.....	Bell.....	2	.....	.....	.....	.....	.....	.....	.....	.....	4.60	.....	0.57	0	4	16	4	11	Sam Crowther.
San Angelo.....	Tom Green.....	1,847	21	54.8	— 3.6	90	14†	27	10	53	0.40	— 0.57	0.15	0	4	16	4	11	F. A. Wilson.
San Antonio.....	Bexar.....	701	27	56.7	— 5.4	82	20	35	22	33	1.86	+ 0.18	0.74	T.	12	3	12	16	U. S. Weather Bureau.
San Juanita.....	San Augustine.....	360	3	54.6	.....	84	18	29	16	44	6.34	.....	1.41	0	10	6	8	17	J. B. Wilson.
San Marcos.....	Hays.....	588	19	54.4	— 8.0	80	20	32	16	42	0.42	.....	0.25	0	4	1	30	J. B. McAllen.	
San Saba.....	San Saba.....	1,712	11	52.6	— 8.8	87	19	28	9	50	2.55	+ 0.64	1.23	0	6	6	0	25	Miss L. C. Ford.
Santa Gertrudes.....	Nueces.....	12	.....	.....	.....	.....	.....	.....	.....	.....	0.49	+ 2.75	1.91	0	14	6	0	25	Jas. Burns.
Sealy.....	Austin.....	201	.....	.....	.....	.....	.....	.....	.....	.....	0.45	— 1.40	0.45	0	1	1	1	1	J. B. Wright, jr.
Seymour.....	Baylor.....	1,320	6	45.4	.....	88	18†	14	8	62	1.42	.....	0.40	T.	5	7	0	24	O. H. Albert.
Snyder.....	Scurry.....	48.2	.....	91	19	21	9	47	0.77	.....	0.47	0	5	12	6	13	se.		
Somerville.....	Burleson.....	251	3	56.8	.....	83	3	30	16	34	3.62	.....	1.20						

TABLE 2.—*Daily precipitation for March, 1912. District No. 8, Texas and Rio Grande Valley.*

TABLE 2.—*Daily precipitation for March, 1912. District No. 8—Continued.*

Stations.	Watershed.	Day of month.																														Total.					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
<i>Texas.</i>																																					
Abilene	Brazos	T.	T.	.13	T.	T.	.04	.02	.21																									1.40			
Albany	do	T.	T.	.20	T.	T.	T.	.30																										1.63			
Alice	Coast	.10	.05																															0.72			
Alpine	Pecos																																				
Alvin	Coast																																		2.67		
Anahuae	do																																		4.59		
Antelope	Trinity																																				
Aspermont	Brazos																																			1.45	
Austin	Colorado	.02	.19	.16	.28		.03	.01																										0.56			
Ballinger	do	T.	T.	.10	T.																														0.00		
Barstow	Pecos																																				
Bay City	Colorado																																			1.60	
Beaumont	Neches																																			3.32	
Beeville	Coast	.03	T.	.08																																1.02	
Big Spring	Colorado	T.	.01	.01																															0.17		
Blanco	Guadalupe	.18		.68																															3.11		
Boerne	San Antonio	.15	.18	.80	.08																														2.50		
Booth	Brazos																																				
Bowie	Trinity	.11	.02	.17	.06																														5.18		
Brady	Colorado																																			0.98	
Brazoria	Brazos	T.	T.	.01	.05																														1.71		
Brazos	do	.13	T.	.15	.56																														1.85		
Brenham	Bridgeport																																			3.19	
Bridgeport	Trinity	.04	.02	.05	.03	.72																												0.40			
Brighton	Coast																																				
Brownsville	Rio Grande	.02																																		0.20	
Brownwood	Colorado																																			2.46	
Cameron	Brazos																																			5.11	
Carmona	Neches	T.	T.	.03	.50																														5.43		
Claytonville	Brazos																																			1.18	
Clifton	do	.08	.01	.64	.06																														30.60		
Coleman	Colorado	T.	T.	.29	T.																														1.35		
Collegeport	Coast																																				
College Station	Brazos	T.	.02	.02	.01	.60																													6.58		
Colorado	Colorado																																			0.28	
Columbia	Brazos																																				1.05
Columbus	Colorado																																				1.82
Corpus Christi	Coast	.01																																		0.58	
Corsicana	T.	.10		.30	T.																														4.53		
Cotulla	Nueces																																			1.00	
Crockett	Trinity	T.	.04	.02	.15																														5.68		
Cuero	Guadalupe	.06																																		2.36	
Dallas	Trinity	.05	.11	.16	.06																														2.05		
Danevang	Coast																																			2.30	
Decatur	Trinity																																				
Del Rio	Rio Grande	.04	.05																																	0.58	
Devine	Nueces	T.	.15		.10	T.																													2.33		
Dialville	Neches	T.	.10		.29	T.																													9.57		
Dilley	Nueces																																			0.85	
Dublin	Colorado	.05	T.	.24	T.																														3.13		
Duval	Colorado	.08	.40	.69	T.																														3.15		
Eagle Pass	Rio Grande	.09	.08																																0.98		
Eastland	Brazos	T.	T.	.45	.56	.03	T.																											1.97			
Edna	Lavaca																																			1.52	
El Paso	Rio Grande																																			0.27	
Encinal	Nueces																																			1.05	
Eola	Colorado																																				
Fairland	Coast	.12		.52	.02																														2.69		
Falfurrias	Guadalupe			.08																															0.35		
Flatonia	Neches	.10		.05	.22	T.																												3.70			
Gainesville	Trinity	.08	.01	T.	.24																																

TABLE 2.—*Daily precipitation for March, 1912. District No. 8—Continued.*

* Precipitation included in that of the next measurement.

Separate dates of falls not recorded.

II Precipitation for the 24 hours ending on the morning when it is measured,
III Precipitation is less than 0.21 inch rain or melted snow.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures for March, 1912. District No. 8, Texas and Rio Grande Valley.

Date.	Colorado.				New Mexico.										Texas.														
	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountain-air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Springs.		Brownsville.		Corpus Christi.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
1....	43	6	50	18	73	30	52	24	61	20	56	26	55	26	47	27	48	25	33	20	52	36	48	30	70	56	60	47	
2....	48	15	44	26	67	38	77	42	60	24	55	21	55	32	68	36	45	29	54	27	72	47	75	45	79	56	68	59	
3....	47	14	46	25	76	29	83	30	67	32	64	26	62	40	77	28	53	26	64	26	55	44	69	39	80	66	70	62	
4....	50	21	49	23	71	38	68	41	63	25	68	32	57	38	52	34	50	34	53	28	46	33	55	31	78	66	72	64	
5....	52	18	48	22	71	35	52	33	58	26	64	26	62	32	39	31	53	28	33	25	33	27	34	29	75	55	68	47	
6....	53	22	47	20	74	41	81	31	64	29	60	36	60	38	65	31	52	34	65	30	51	31	65	29	60	48	56	42	
7....	47	25	43	19	65	45	78	37	63	30	55	34	55	35	70	33	47	32	61	43	49	39	81	41	76	55	55	52	
8....	40	22	43	15	63	36	70	36	51	27	51	27	50	28	43	35	43	26	52	28	39	29	69	32	81	60	66	48	
9....	49	17	47	24	50	44	40	31	53	26	45	25	48	32	42	30	41	24	39	25	38	24	36	23	60	48	49	41	
10....	48	18	45	30	57	44	49	32	48	32	51	36	46	34	48	30	46	34	46	30	46	35	51	32	52	46	59	44	
11....	43	25	35	25	58	39	68	36	52	28	48	32	45	28	65	33	39	25	55	35	70	39	69	35	73	52	72	55	
12....	45	17	40	18	65	32	62	24	61	17	54	19	50	24	55	24	42	21	52	32	58	27	68	50	64	51	63	50	
13....	39	24	37	26	66	41	73	30	59	24	60	34	48	30	72	28	49	24	66	26	53	35	56	34	74	44	63	50	
14....	45	11	41	24	56	38	69	45	57	28	54	22	38	22	57	30	36	21	46	31	56	33	66	41	79	66	78	62	
15....	48	12	43	25	62	30	67	20	58	28	55	21	50	20	66	20	47	26	61	12	56	26	62	22	76	55	64	46	
16....	47	18	50	23	70	32	81	35	67	15	64	19	57	26	77	30	50	25	68	28	71	42	73	41	73	43	63	55	
17....	49	15	45	13	72	36	81	33	67	32	63	21	60	28	76	34	50	24	67	37	78	49	79	44	76	53	68	60	
18....	56	25	55	14	73	30	87	34	74	31	69	27	63	32	84	34	58	29	75	33	82	53	93	88	94	79	63	63	
19....	55	26	54	24	80	55	86	52	76	43	71	45	65	46	84	51	52	43	73	48	90	61	90	55	84	66	72	66	
20....	49	32	43	32	69	36	83	61	64	48	60	40	51	39	68	47	84	42	90	60	82	68	75	65	85	75	65	65	
Mns..	48.8	19.2	46.7	22.5	65.8	36.5	71.7	34.0	59.7	26.9	58.5	26.5	54.0	30.0	63.7	31.6	47.5	27.8	57.7	29.5	59.5	38.5	67.4	38.0	74.9	55.7	65.9	53.8	
Date.	Texas.																												
	Del Rio.		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Seymour.		Taylor.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
1....	47	39	74	32	55	45	65	25	43	36	57	50	65	44	65	47	61	38	52	38	34	25	62	43	45	29	62	41	
2....	70	46	70	43	72	45	80	35	55	39	62	56	65	54	65	53	62	42	59	41	65	32	65	53	72	30	63	52	
3....	77	47	76	36	84	54	85	35	55	42	72	60	79	64	82	62	79	58	74	56	57	29	76	58	64	32	73	57	
4....	77	53	71	47	82	61	82	52	49	35	63	59	78	65	68	62	76	60	69	56	50	26	71	58	45	25	69	44	
5....	60	44	71	41	80	57	52	31	36	30	62	47	65	44	64	43	67	41	60	37	31	21	58	43	35	19	44	35	
6....	61	46	76	48	82	51	83	29	42	34	52	45	54	39	51	41	47	37	47	35	67	28	49	38	42	24	47	34	
7....	65	47	68	52	64	43	85	47	55	41	61	52	64	49	66	49	59	44	58	44	32	59	46	51	30	58	46	66	46
8....	58	42	65	42	76	48	78	34	54	30	68	51	64	47	64	46	60	40	55	37	38	25	60	41	44	14	58	36	
9....	50	40	45	38	76	48	42	30	43	25	51	44	47	36	49	39	52	36	40	32	38	17	47	36	39	16	39	32	
10....	52	44	56	44	55	42	62	36	47	38	58	43	58	40	53	41	60	38	48	37	40	27	47	40	44	27	50	38	
11....	85	47	57	41	82	49	70	45	73	41	69	57	72	51	52	52	58	42	70	43	55	34	79	47	55	35	74	46	
12....	70	43	68	34	78	44	64	25	49	35	60	50	59	44	60	44	59	39	52	37	54	23	65	43	63	31	57	38	
13....	60	44	66	52	76	42	61	44	53	30	59	45	61	39	55	40	57	31	53	34	59	34	58	40	55	22	53	36	
14....	71	48	52	37	89	60	64	44	65	35	67	57	76	55	71	55	68	30	59	39	52	29	76	55	52	35	67	44	
15....	69	38	62	35	77	44	72	23	57	23	57	42	59	39	58	39	66	39	51	30	59	17	66	39	54	16	56	32	
16....	72	45	70	35	81	43	81	39	68	38	59	50	69	39	62	41	66	41	64	36	72	23	70	40	73	29	64	36	
17....	82	50	73	42	87	55	83	40	80	50	65	57	77	50	76	53	76	45	73	47	73	40	78	49	77	38	74	48	
18....	79	57	78	45	92	56	91	44	84	53	64	59	78	61	81	53	85	57	76	57	82	32	74	59	88	38	79	57	
19....	79	60	83	53	92	61	91	50	92	59	69	60	75	66	78	65	84	64	80	68	84	44	73	60	85	45	73	58	
20....	81	66	72	59	96	60	92	54	76	66	69	63	79	68	75	67	80	66	78	68	81	50	82	66	86	36	77	67	
21....	75	34	59	38	95	52	84	30	68	28	70	53	68	41	77	46	75	43	72	34	50	17	70	37	80	18	70	34	
22....	45	34	55	35	55	35	37	28	37	29	61	43	49	36	62	40	48	40	41	34	34	23	43	35	34	21	38	32	
23....	77	41	57	36	72	40	70	23																					